

AMENDMENTS TO THE CLAIMS:

1. (Cancelled).
2. (Cancelled)
3. (Currently Amended) A method of manufacturing comprising:
fibrillating thermoplastic fibers and reinforcing fibers;
combining the fibrillated thermoplastic fibers and reinforcing fibers to
form combined fibers;
dispersing and volatilizing the combined fibers to form a composite mat;
needle-punching the composite mat, so that the two fibers are substantially
uniformly distributed throughout the mat;
pre-heating the needle-punched composite mat;
~~The method as defined in claim 2, further comprising the step of~~
~~re-heating~~
~~controllably applying pressure to the composite mat while heating the~~
~~same so that melted matrix fiber impregnates the matsheet; and~~
~~continuing to apply pressure to the composite mat while cooling the same;~~
~~passed through the compressing zone to increase thickness and width thereof,~~
~~thereby obtaining wherein a pseudo-foamed composite sheet is formed by~~
~~inherent increased resilience of the reinforcing fiber due to entanglement of the~~
~~mutually combined fibers.~~
4. (Currently Amended) The method as defined in claim 3, wherein the
~~thickness and width of the composite matsheet are~~
~~is increased by~~
~~formed while being~~
~~conveyed on a continuous stainless belt and a magnet roller.~~
5. (Withdrawn) An apparatus for manufacturing a fiber-reinforced composite having high strength, comprising:

a fibrillating and combining unit for fibrillating and combining a thermoplastic fiber as a matrix resin and a reinforcing fiber to form combined fibers;

a dispersing and volatilizing unit for dispersing and volatilizing the combined fibers, to form a composite mat; and

a needle-punching unit for needle-punching the composite mat to increase dispersibility of the reinforcing fiber in the mat and to maintain a coiled fiber shape and three-dimensional structure of the fiber in the mat.

6. (Withdrawn) The apparatus as defined in claim 5, further comprising:

a pair of upper and lower rollers for melting, compressing and molding the composite mat passed through the needle-punching unit, conveyed by a continuous stainless belt; and

a pressure controlling unit having a spring unit for heating and compressing the rollers so that the thermoplastic resin fiber is melted and the melted thermoplastic resin fiber is impregnated into the reinforcing fiber by the rollers, and for preventing overload of the rollers when the thermoplastic resin fiber is not melted.

7. (New) A method of manufacturing comprising:

fibrillating matrix fibers and reinforcing fibers;

combining matrix fibers and reinforcing fibers to form combined fibers;

matting the combined fibers to form a composite mat, such that the combined fibers in the composite mat are substantially randomly orientated;

needle-punching the composite mat;

pre-heating the needle-punched composite mat;

compressing while heating the composite mat so that melted matrix fiber impregnates the mat; and

compressing while cooling the composite mat,

wherein a pseudo-foamed, fiber-reinforced composite is formed.

8. (New) The method of Claim 7, further comprising laminating the pseudo-foamed, fiber-reinforced composite.

9. (New) The method of Claim 7, wherein the pre-heating or heating is performed by heating a belt used to transport the composite mat.

10. (New) The method of Claim 7 wherein the cooling of the composite mat comprises allowing the compressed composite mat to cool.

11. (New) The method of Claim 7 wherein the cooling of the composite mat occurs through air and water cooling.

12. (New) The method of Claim 7 wherein the reinforcing fibers have a high resiliency modulus.

13. (New) The method of Claim 7 wherein the reinforcing fibers are inorganic.

14. (New) The method of Claim 13 wherein the reinforcing fibers comprise 20-40 vol% or more of the composite mat.

15. (New) The method of Claim 7 wherein the reinforcing fibers are organic.

16. (New) The method of Claim 15 wherein the reinforcing fibers comprise 30 vol% or more of the composite mat.

17. (New) The method of Claim 3 wherein the reinforcing fibers have a length of 30 mm or more.

18. (New) The method of Claim 3 wherein the reinforcing fibers have a length of 50 mm or more.